

# Using the Industrial Source Complex (ISCST3) Model as a Planning and Diagnostic Tool for Air Quality in Houston

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## INTRODUCTION

## MODELING METHODOLOGY

- Model Selection

- Averaging Period

- Receptors

  - Receptor Selection Strategy

- Treatment of Terrain Influences

- Land Use Classification

  - Urban

  - Rural

- Meteorological Data

  - Selection of Surface and Upper Air Stations

  - Meteorological Preprocessing

  - Meteorological Parameters for Deposition Calculations

  - Missing Data

- Chemistry

  - Approaches for Estimating Atmospheric Secondary Production

  - Reactive Decay

- Determining Background Concentrations

  - Monitoring Data

  - Literature Searches

  - Use of Long Range Transport Models

- Model Evaluation

  - Monitoring Data

  - Data Completeness

- Study Limitations

  - Uncertainty

## EMISSIONS INVENTORY

Study Domain

Pollutants

Primary Emission Sources

Emission Source Contributing to Secondary Transformation

Spatial and Temporal Distribution

Characterization of Area and Mobile Source Emissions

Major Source Locations and Parameters

Building characteristics

Stack Parameters

Missing Data

Default Source Parameters

Source Grouping

Quality Assurance

Emission Growth and Control Projections

Model Output & Analysis Requirements

Conclusions